(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Roos

Judy;

CC:

Date: 8/7/2014 5:14:24 PM

Subject: responsive FOIA documents

Attachments: FW EPA statement on brine spill.eml

EPA statement on brine spill.eml

Link to TAT news release on spill.eml

AP EPA Trying to Confirm ND Spill Didn't Reach Lake.eml

UPDATED AP Saltwater leak alters water supply for 1 ND town.eml

AP Saltwater leak alters water supply for 1 ND town.eml

RE AP Saltwater leak alters water supply for 1 ND town.eml

RE Reuters Query - North Dakota spill .eml

RE Reporter with questions on saltwater pipeline spill on Ft. Berthold.eml

RE Reporter with questions on saltwater pipeline spill on Ft. Berthold.eml

EPA statement on brine spill.eml

EPA statement on brine spill.eml

Fw Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

FW Qs re brine spill.eml

RE ACTION AP inquiry on ND - early deadline this AM.eml

RE ACTION AP inquiry on ND - early deadline this AM.eml

ND brine spill situation.eml

FW Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

Re Mandaree Salt Water Spill.eml

RE your call.eml

RE draft response to AP questions.eml

RE your call.eml

Reuters Query - North Dakota spill .eml

brine leak on reservation .eml

Re Reporter with questions on saltwater pipeline spill on Ft. Berthold.eml

Re Reporter with questions on saltwater pipeline spill on Ft. Berthold.eml

FW Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

FW Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

Re UPDATED AP Saltwater leak alters water supply for 1 ND town.eml

Fw About 1 million gallons of saltwater pipeline leaks on Fort Berthold reservation Energy News (UNCLASSIFIED).eml

Re Brief update to richard mylott.eml

FW Brief update to richard mylott.eml

RE AP Saltwater leak alters water supply for 1 ND town.eml

Fw Brief update to richard mylott.eml

Fw Brief update to richard mylott.eml

Fw Brief update to richard mylott.eml

FW Aero Pipeline leak near Mandaree, ND.eml

FW draft Hot Topic - Brine Oil Pipeline leak near Fort Berthold intake, Missouri River.eml

FW Associated Press seeks info on oil saltwater.eml

UPDATE Mandaree, ND Drinking Water.eml

UPDATE Mandaree, ND Drinking Water.eml

UPDATE Mandaree, ND Drinking Water.eml

RE AP Saltwater leak alters water supply for 1 ND town.eml

RE EPA statement on brine spill.eml

RE InsideClimate News 'Saltwater' From North Dakota Fracking Spill Is Not What's Found in the Ocean.eml

RE draft response to AP questions.eml

RE draft response to AP questions.eml

draft response to AP questions.eml

AP on ND spill.eml

FW EPA statement on brine spill.eml

InsideClimate News 'Saltwater' From North Dakota Fracking Spill Is Not What's Found in the Ocean.eml

FW Brief update to richard mylott.eml

RE Brief update to richard mylott.eml

RE Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

RE Press Inquiry.eml

RE Press Inquiry.eml

RE photos from crestwood spill - osc.net .eml

ACTION AP inquiry on ND - early deadline this AM.eml

FW Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill.eml

FW URGENT request for epa rep interview, The Takeaway, WNYC.eml

Brief update to richard mylott .eml

RE AP Saltwater leak alters water supply for 1 ND town.eml

RE Associated Press seeks info on oil saltwater.eml

Qs re brine spill.eml

RE your call.eml

Hi Judy—I hope these get to you ok. Call me Monday if there's anything I can do to help. Many of these are draft and deliberative but I trust someone from ORC will review and determine what to release. Thanks!

Rich

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: apbismarck@ap.org

CC:

Date: 7/10/2014 12:08:59 PM

Subject: FW: EPA statement on brine spill

Please change reference in first sentence below to "Tribes." Thanks.

From: Mylott, Richard

Sent: Thursday, July 10, 2014 12:01 PM

To: 'apbismarck@ap.org'

Subject: EPA statement on brine spill

EPA is providing technical support to the Tribe as it leads assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessment activity will take place today.

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

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CC:

Date: 7/10/2014 12:01:01 PM

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Bahrman

Sarah; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory: Hestmark

Martin; Stavnes

Sandra

CC:

Date: 7/10/2014 1:57:58 PM

Subject: Link to TAT news release on spill

https://www.facebook.com/NorthSegmentOfTheThreeAffiliatedTribes/photos/a.464307356975217.1073741826.448088225263797/702940339778583/?type=1&theater

From: Mylott, Richard

Sent: Thursday, July 10, 2014 1:42 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Romero, David; Morales,

Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Stavnes, Sandra

Subject: AP: EPA Trying to Confirm ND Spill Didn't Reach Lake

EPA Trying to Confirm ND Spill Didn't Reach Lake

MANDAREE, N.D. — Jul 10, 2014, 3:35 PM ET
By JOSH WOOD and JAMES MacPHERSON Associated Press



Officials are assessing a spill of oil-drilling saltwater from a North Dakota pipeline to ensure none of the brine affected the lake an American Indian reservation uses for drinking water, the Environmental Protection Agency said Thursday.

In its first public statement in the two days since the spill was detected, the agency said it had no confirmed reports that the saltwater had reached Bear Den Bay. It leads to Lake Sakakawea, which provides water for the Fort Berthold reservation occupied by the Mandan, Hidatsa and Arikara tribes in the heart of western North Dakota's booming oil patch.

EPA said most of the spill was pooled on the ground, soaked into the soil and held behind beaver dams. It said the leak involved an estimated 24,000 barrels, or 1 million gallons, of saltwater and condensate, which are byproducts of oil and gas production.

Cleanup at the reservation site continued Thursday and was expected to last for weeks, said Miranda Jones, the vice president of environmental safety and regulatory at Houston-based Crestwood Midstream Partners Inc.

Jones said the leak at the underground pipeline, owned by Crestwood subsidiary Arrow Pipeline LLC, likely started over the Fourth of July weekend. The pipeline was not equipped with a system that sends an alert when there is a leak, she said, and the spill was only discovered when the company was going through production loss reports.

"This is something no company wants on their record, and we are working diligently to clean it up," Jones said.

Although the EPA said additional assessment activity was being conducted, company and tribal officials said the spill had been contained and did not affect the lake.

"We have a berm and a dike around it, around that bay area, to keep it from going into the lake," said Three Affiliated Tribes Chairman Tex Hall.

Saltwater is a naturally occurring, unwanted byproduct of oil and natural gas production that is between 10 and 30 times saltier than sea water. The state

considers it an environmental hazard.

The briny byproduct also may contain petroleum and residue from hydraulic fracturing operations.

Kris Roberts, an environmental geologist with the North Dakota Department of Health, said damage from the toxic spill could be seen when he visited the site on Tuesday.

"We've got dead trees, dead grasses, dead bushes, dying bushes," he said.

Karolin Rockvoy, a McKenzie County emergency manager, said it was apparent from looking at vegetation that the spill went undetected for some time.

The number of saltwater spills in North Dakota has grown with the state's soaring oil production. North Dakota produced 25.5 million barrels of brine in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

Fort Berthold Indian Reservation plays a key role in the state's oil production, the second-highest in the nation. The reservation currently represents more than 300,000 of North Dakota's 1 million barrels of oil produced daily, according to the state's Department of Mineral Resources.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed saltwater to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the brine is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: <u>Bahrman</u>

From:

Sarah; Mohr

Mindy; McClain-Vanderpool

Lisa:McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin; Stavnes

Sandra

CC:

Date: 7/10/2014 1:41:51 PM

Subject: AP: EPA Trying to Confirm ND Spill Didn't Reach Lake

EPA Trying to Confirm ND Spill Didn't Reach Lake

MANDAREE, N.D. — Jul 10, 2014, 3:35 PM ET By JOSH WOOD and JAMES MacPHERSON Associated Press



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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT.RICHARD>

To: <u>Bahrman</u>

Sarah; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin

CC:

Date: 7/10/2014 9:37:38 AM

Subject: UPDATED AP: Saltwater leak alters water supply for 1 ND town

Fyi. Pete Stevenson is on-scene.

Estimated 1M gallons of saltwater leaks in ND bay

By Associated Press July 9 at 7:54 PM

MANDAREE, N.D. — Around 1 million gallons of saltwater spilled into a North Dakota bay, causing some environmental damage but sparing a nearby

lake that provides drinking water for an American Indian reservation, company and tribe officials said Wednesday.

Three Affiliated Tribes Chairman Tex Hall told The Associated Press that an underground pipeline near Mandaree leaked about 24,000 barrels of brine into Bear Den Bay, a tributary to Lake Sakakawea. That Missouri River reservoir provides water to communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water. At least some damage to trees, bushes and grass was reported, but the extent wasn't immediately clear.

Miranda Jones, vice president of environmental safety and regulatory at Houston-based Crestwood Midstream Services Inc., whose subsidiary Aero Pipeline LLC owns the pipeline, said the leak likely started over the weekend but wasn't discovered until Tuesday. The pipeline is not equipped with a system that sends an alert when there's a leak, she said.

"This is something that no company wants on their record, and we are working diligently to clean it up," Jones said.

Tribal leaders switched to an alternative source of water Wednesday but were again tapping Lake Sakakawea after concluding the contamination was limited to the bay, Hall said.

An investigator with the federal Environmental Protection Agency arrived Wednesday at the site.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said damage from the toxic spill could be seen Wednesday.

"We've got dead trees, dead grasses, dead bushes, dying bushes," Roberts said.

Karolin Rockvoy, a McKenzine County Emergency manager, said the spill appeared to have gone undetected for some time.

"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."

The number of saltwater spills in North Dakota has grown with the state's soaring oil production.

North Dakota produced 25.5 million barrels of brine in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

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die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the brine is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

MacPherson reported from Bismarck, N.D.

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North Dakota following a substantial leak from a saltwater pipeline.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

The federal Environmental Protection Agency said an investigator was heading to the site Wednesday afternoon.

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT.RICHARD>

To: <u>Bahrman</u>

From:

Sarah; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura; Stevenson

Peter;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin

CC:

Date: 7/9/2014 4:26:36 PM

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North

Dakota following a substantial leak from a saltwater pipeline.

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"Card, Joan" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9B904FC95A6348BA81F8DE23B1B2360D-CARD, JOAN>

To: <u>Bahrman</u>

From:

Sarah; Mylott

Richard; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Ostrander

David; Williams

Laura; Stevenson

Peter;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin; Videtich

Callie:Thomas

Deb:Hoskie

Sadie

CC:

Date: 7/10/2014 7:17:38 AM

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Thanks for that information Sarah.

Joan Card | Senior Policy Advisor Office of the Regional Administrator USEPA Region 8 (CO, MT, ND, SD, UT, WY) 1595 Wynkoop Street | Denver, CO 80202 (303) 312-6468 | card.joan@epa.gov

From: Bahrman, Sarah

Sent: Thursday, July 10, 2014 8:10 AM

To: Mylott, Richard; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Videtich, Callie; Thomas, Deb; Hoskie, Sadie

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Hi all -

Jack Sorum, a drinking water treatment engineer with Indian Health Service, is on site in Mandaree this morning to evaluate the impact to the drinking water intake, what samples have been or should be collected in that area, and the status of the water supply. Jack has Pete Stevenson's cell phone number so they can coordinate.

I will plan to send an update later this morning once we have more information. Please let me know if you have any questions.

Thanks, Sarah

Sarah E. Bahrman | Unit Chief, Drinking Water | U.S. Environmental Protection Agency - Region 8 (p) 303.312.6243 | (c) 303.903.8515 | (f) 877.876.9101

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

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Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

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The number of saltwater spills in North Dakota has grown with the state's soaring oil production.

North Dakota produced 25.5 million barrels of briny water in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed briny water to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the briny water is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT.RICHARD>

To: <u>Edward.McAllister@thomsonreuters.com</u>
CC: <u>Joshua.Schnever@thomsonreuters.com</u>

Date: 7/15/2014 2:43:23 PM

Subject: RE: Reuters Query - North Dakota spill

Ed—thanks for your email, the Tribe is leading the assessment and response work on this spill so they'd be the best source for information on the status of cleanup activity. Glenda Baker Embry is the person I've been in touch with there. Her # is 701-627-8242. My understanding is that a leaking line was shut and the leak was stopped when discovered last week. The spill content was almost entirely brine, impacts were limited to a nearby drainage. Assessments found no impacts to the bay or Lake Sakakawea itself, but I'd check with Glenda to confirm that. Also, water samples taken near drinking water intakes showed no evidence of brine or other constituents.

Rich

From: Edward.McAllister@thomsonreuters.com [mailto:Edward.McAllister@thomsonreuters.com]

Sent: Tuesday, July 15, 2014 10:15 AM

To: Mylott, Richard

Cc: Joshua.Schneyer@thomsonreuters.com **Subject:** Reuters Query - North Dakota spill

Hi Rich,

Ed McAllister here at Reuters in New York, doing some research on the wastewater pipeline spill from a pipeline near Lake Sakakawea, ND on July 8. Wondering if you could give us some detail on what happened and how things stand now.

Do you know how much wastewater was spilled and what the wastewater contained? We are unclear if this was drilling brine or something more complex containing fracking fluids and/or oil residue.

Has the spill been contained?
Has the leak been stopped?
What was the cause of the leak?
Have local residents been impacted?
Do you have an incident report on this?

Any information would be much appreciated. Many thanks.

Best,

Edward McAllister Senior Correspondent Reuters, New York +1 646 223 6221

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT, RICHARD>

To: "Emily Guerin" <eguerin@prairiepublic.org>

CC:

Date: 7/10/2014 2:01:45 PM

Subject: RE: Reporter with questions on saltwater pipeline spill on Ft.Berthold

I haven't received a recent update. The Tribe is lead and will be primary source for information.

From: Emily Guerin [mailto:eguerin@prairiepublic.org]

Sent: Thursday, July 10, 2014 1:51 PM

To: Mylott, Richard

Subject: Re: Reporter with questions on saltwater pipeline spill on Ft. Berthold

Also the tribe says the spill did reach the bay and they're sucking up the saltwater with vacuum pumps (see this news release). Can you confirm that?

On Thu, Jul 10, 2014 at 2:49 PM, Emily Guerin < eguerin@prairiepublic.org > wrote:

Ok great. When you saw draw, what exactly do you mean? Small stream?

On Thu, Jul 10, 2014 at 2:36 PM, Mylott, Richard < Mylott.Richard@epa.gov > wrote:

Hi Emily, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is providing technical support to the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

Rich Mylott USEPA 303-312-6654 From: Emily Guerin [mailto:eguerin@prairiepublic.org]

Sent: Thursday, July 10, 2014 10:20 AM

To: Mylott, Richard

Subject: Reporter with questions on saltwater pipeline spill on Ft. Berthold

Hi Richard,

I'm a reporter with Prairie Public and I'm trying to find out more about the saltwater pipeline spill on the Ft. Berthold reservation in North Dakota. Please give me a call as soon as possible at 701-224-1700 ext. 220.

Thanks, Emily

--

Emily Guerin

North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

701.224.1700 ext.220 (o) 207.798.9505 (c)

@guerinemily | @InsideEnergyNow www.insideenergy.org

-

Emily Guerin

North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

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Emily Guerin

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT, RICHARD>

To: "Emily Guerin" <equerin@prairiepublic.org>

CC:

Date: 7/10/2014 1:36:54 PM

Subject: RE: Reporter with questions on saltwater pipeline spill on Ft.Berthold

Hi Emily, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is providing technical support to the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

Rich Mylott USEPA 303-312-6654

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Sent: Thursday, July 10, 2014 10:20 AM

To: Mylott, Richard

Subject: Reporter with questions on saltwater pipeline spill on Ft. Berthold

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Thanks, Emily

Emily Guerin

North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

701.224.1700 ext.220 (o) 207.798.9505 (c) @guerinemily | @InsideEnergyNow www.insideenergy.org

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: gembrey@mhanation.com

CC: <u>Smith</u>

Paula;

Date: 7/10/2014 11:09:41 AM

Subject: EPA statement on brine spill

Rich Mylott USEPA Region 8 Communications 303-312-6654

.....

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: gembry@mhanation.com

CC:

From:

Date: 7/10/2014 11:12:25 AM

Subject: EPA statement on brine spill

Rich Mylott USEPA Region 8 Communications 303-312-6654

.....

From: "Ostrander, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER, DAVID>

To: <u>Hestmark</u>

Martin;Stavnes
Sandra;Mylott

Richard

CC:

Date: 7/10/2014 10:53:21 AM

Subject: Fw: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Fyi.

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:43:53 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill



(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: McClain-Vanderpool

Lisa;

CC:

From:

Date: 7/22/2014 2:41:14 PM Subject: FW: Qs re: brine spill

Fyi.

From: Mylott, Richard

Sent: Thursday, July 17, 2014 1:36 PM

To: 'Wood, Joshua'

Subject: Qs re: brine spill

Hi Josh—hope below helps. The nature of EPA's roles and responsibilities are based on the specific circumstances associated with each spill. In this case, there were no indications of oil impacts to surface waters. The Tribe is the primary authority for spill response and the cleanup in areas of the drainage affected by brine water. I understand Glenda Baker Embry is the best contact for the Tribe.

Rich Mylott

-Did the EPA conduct its own air, water and soil tests at the scene of the site? Did the EPA conduct water tests in Lake Sakakawea and Bear Den Bay? If so, what did these tests show? If the EPA did not conduct these tests, did any independent body conduct these tests? By independent, I mean not Crestwood Midstream Partners LP or its subsidiary, nor a company they contracted nor somebody they recommended to the Three Affiliated Tribes.

No. The Tribe is the lead agency on the spill response and the best source for information related to sampling data. The lead response agency and responsible party are typically responsible for securing samples at spill sites. My understanding is that samples taken near drinking water intakes showed no indication of hydrocarbons or impacts from brine. I understand some samples were tested at a state lab, but you should confirm with the Tribe as they are lead. I also understand samples were taken at several locations; the Tribe will have specifics.

-What jurisdiction does the EPA have over of spills on reservations?

EPA investigates spills reported to the U.S. Coast Guard's National Response Center and provides support to state, tribal and local authorities as appropriate. EPA's primary role under our authorities is to ensure appropriate response actions are taken when 1.) oil spills threaten or impact surface waters or 2.) releases of hazardous substances pose an immediate and substantial threat to human health. Our specific roles as a lead or supporting agency also depend on the extent of state, tribal and

local response capabilities. In this case, the spill involved brine water and there was no oil observed in the drainage leading to the bay or in the bay itself. As such, our roles were limited to an initial assessment and the provision of support to the Tribe as lead.

-I know that the state of North Dakota and the counties do not have jurisdiction over these kinds of spills. Are all spills on tribal lands reported to the EPA? If not, what kinds of spills do as far as size, location etc?

Yes. Oil and hazardous material spills with the potential to impact surface waters are reported to the U.S. Coast Guard's National Response Center, which notifies the appropriate EPA region. There is a reportable quantity for spills/discharges which varies by chemical. For oil, the reportable quantity is a sheen on water.

-What did the EPA observe on the scene? Can you provide any reports filed about the incident?

EPA inspected the spill site and walked the length of the drainage. There were no signs of oil contamination along the spill flow path into the drainage below. There were no signs of oil in the drainage, in the beaver ponds, or below. There were no signs of oil on water at Bear Den Bay, or along the shoreline of the bay.

-The last statement I got from your office said the EPA was still investigating the extent of brine contamination.

Did brine get into Lake Sakakawea or the Bear Den Bay?

EPA observed no evidence of impacts to the bay or the lake, however the Tribe will be the best source for information.

Do we have figures on how much ground was affected by the spill and how much vegetation was killed off? Was wildlife affected?

The cleanup of the affected drainage is the Tribe's responsibility. The Tribe would be primary source for specifics related to the scope of impacts. The brine water did affect vegetation in the drainage and was held up in a series of beaver ponds.

-When was the EPA first notified of the Mandaree spill? Who notified the agency?

The company made a report to the NRC on July 8 at 13:16.

-Crestwood Midstream Partners LP estimates the cleanup will take weeks. A spill of a similar size occurred near the town of Alexander, North Dakota in 2006 and was still being cleaned up as of last week. Does the EPA concur with Crestwood's estimated clean-up timeline?

The cleanup of the drainage is the Tribe's responsibility. The Tribe will be the best source for specific cleanup requirements and estimates on how long actions will take.

-How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?

Saltwater contains high concentrations of dissolved solids that can be toxic to vegetation and aquatic organisms. It can also make water unsuitable for drinking.

-What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

The Tribe is responsible for the cleanup of the drainage. The primary concern will be flushing the drainage with fresh water and helping vegetation recover. Precipita s also a factor in diluting concentrations in soils and helping with recovery.	ation

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: McClain-Vanderpool

Lisa;

CC:

Date: 7/11/2014 9:18:21 AM

Subject: RE: ACTION: AP inquiry on ND - early deadline this AM

From: McClain-Vanderpool, Lisa **Sent:** Friday, July 11, 2014 8:37 AM **To:** Stavnes, Sandra; Bahrman, Sarah

Cc: Smith, Paula; Mylott, Richard; Williams, Laura

Subject: ACTION: AP inquiry on ND - early deadline this AM

James MacPherson from AP would like to know --

- 1) Is EPA relying on the company responsible for the spill for testing? Or are we (or the tribe?) doing it independently?
- 2) Have we tested both upstream and down?
- 3) Have we tested the Missouri River? (He claims the state thinks it has reached the river).
- 4) If we've tested, what did we find? What is in it?

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: McClain-Vanderpool

Lisa;

CC:

Date: 7/11/2014 9:00:26 AM

Subject: RE: ACTION: AP inquiry on ND - early deadline this AM

Fyi http://bismarcktribune.com/bakken/officials-no-evidence-brine-in-bay-after-north-dakota-spill/article b87b7e84-0902-11e4-92c3-001a4bcf887a.html

From: McClain-Vanderpool, Lisa **Sent:** Friday, July 11, 2014 8:37 AM **To:** Stavnes, Sandra; Bahrman, Sarah

Cc: Smith, Paula; Mylott, Richard; Williams, Laura

Subject: ACTION: AP inquiry on ND - early deadline this AM

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: McClain-Vanderpool

Lisa;Smith

Paula;

CC:

Date: 7/10/2014 4:47:15 PM Subject: ND brine spill situation

See link below for Tribe release.

Key players are:

Sarah Bahrman
Pete Stevenson OSC- cell-

Glenda Embry, spokesperson for the Tribe- 701-627-8242

Sandy Stavnes has also been in the loop on this.

From: Mylott, Richard

Sent: Thursday, July 10, 2014 2:07 PM

To: 'Sider, Alison'

Subject: RE: Press Inquiry

Alison—I understand the Tribe has issued a release that updates some of the info I had from this morning.

https://www.facebook.com/NorthSegmentOfTheThreeAffiliatedTribes/photos/a.464307356975217.1073741826.448088225263797/702940339778583/?type=1&theater

From: Mylott, Richard

Sent: Thursday, July 10, 2014 1:45 PM

To: 'Sider, Alison'

Subject: RE: Press Inquiry

Hi Alison, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is supporting the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

From: Sider, Alison [mailto:ALISON.SIDER@wsj.com]

Sent: Thursday, July 10, 2014 8:53 AM

To: Mylott, Richard Subject: Press Inquiry

Hi Rich,

I was wondering if you had any information you could share about the saltwater pipeline spill at the Fort Berthold Reservation earlier this week?

Thanks very much, Alison Sider

Alison Sider
THE WALL STREET JOURNAL
alison.sider@wsj.com
(0) 713-547-9207
(m) 832-506-0429
Twitter: @alyrose

From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: McGrath

Shaun;

CC: <u>Smith</u>

Paula:

Date: 7/10/2014 9:58:45 AM

Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Rich

303-312-6654

From: Romero, David

Sent: Thursday, July 10, 2014 9:49 AM

To: Stavnes, Sandra; Mylott, Richard; Bahrman, Sarah; Mohr, Mindy; Hestmark, Martin; Ostrander, David Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:44 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

From: "Rose Brogden" < Brogden. Rose@epamail.epa.gov>

To: Melinda <Bolton>

CC: "Group R8Eisc" <R8Eisc@epamail.epa.gov>

"Richard Mylott" < Mylott.Richard@epamail.epa.gov>

"Lisa Mcclain-Vanderpool" < Mcclain-Vanderpool.Lisa@epamail.epa.gov>

Date: 7/11/2014 12:58:41 PM

Subject: Re: Mandaree Salt Water Spill

Hello,

Your email reached the US EPA Region 8 Environmental Information Service Center (EISC). The press contacts for the information you are requesting are Richard Mylott and Lisa Mcclain-Vanderpool. You may wish to contact either for guidance regarding your email.

mylott.richard@epa.gov (303) 312-6654

mcclain-vanderpool.lisa@epa.gov (303) 312-7077

Thank you for your interest in the environment.

"Melinda Bolton" ---07/11/2014 12:54:04 PM---Hoping I copied your e-mail address from your calling system correctly! ... Good afternoon,

From: "Melinda Bolton" <mbolton@kxnet.com>
To: Group R8Eisc/OCP/R8/USEPA/US@EPA
Date: 07/11/2014 12 54 PM
Subject: Mandaree Salt Water Spill

Hoping I copied your e-mail address from your calling system correctly!

... Good afternoon,

My name is Melinda Bolton and I am a reporter for KXMC in Minot, ND. I was out in the oil fields yesterday covering the brine spill near Mandaree, ND. I don't need a confirmation of the oil spill, as we already have that... but I would greatly appreciate an update on the water conditions. Particularly, if you have done any further testing. In addition an update on the remediation process in general would be appreciated as well.

If you can return the message by phone, that would be preferable. The general number for the news room is (701) 852-2104. That line will only go unanswered between 6 and 6:30 (Central) and 10:30 Central. At any other time there will be someone available. E-mail is great too, you can reply to kvolk@kxnet.com, to our evening anchor Kelli... or to jolson@kxmcnews.com our news director, Jim.

Thanks for your time,

Melinda

From: "Wood, Joshua" <JoWood@ap.org>

To: Mylott

Richard

CC:

Date: 7/17/2014 8:08:41 AM

Subject: RE: your call

Thanks Rich.

From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 5:12 PM

To: Wood, Joshua **Subject:** RE: your call

Josh—thanks, I'll work on these.

From: Wood, Joshua [mailto:JoWood@ap.org]

Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard **Subject:** RE: your call

Hi Rich,

Thanks for getting back to me. I'm trying to get more information about this pipeline spill near Mandaree, North Dakota that occurred in early July. I'm trying to get as much information as possible. Any updates you have collected would be appreciated and I have quite a few specific questions:

- -Did the EPA conduct its own air, water and soil tests at the scene of the site? Did the EPA conduct water tests in Lake Sakakawea and Bear Den Bay? If so, what did these tests show? If the EPA did not conduct these tests, did any independent body conduct these tests? By independent, I mean not Crestwood Midstream Partners LP or its subsidiary, nor a company they contracted nor somebody they recommended to the Three Affiliated Tribes.
- -What jurisdiction does the EPA have over of spills on reservations?
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- -What did the EPA observe on the scene? Can you provide any reports filed about the incident?

- -The last statement I got from you office said the EPA was still investigating the extent of brine contamination. Did brine get into Lake Sakakawea or the Bear Den Bay? Do we have figures on how much ground was affected by the spill and how much vegetation was killed off? Was wildlife affected?
- -When was the EPA first notified of the Mandaree spill? Who notified the agency?
- -Is the EPA still on site?
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- -How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?
- -What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

Thanks, and hope to hear back from you soon.

Best, Josh

From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 2:01 PM

To: Wood, Joshua Subject: your call

Josh—I'm working out of the office today, but checking mail periodically. Let me know how I can help. Thanks!

Rich Mylott

The information contained in this communication is intended for the use of the designated recipients named above. If the reader of this communication is not the intended recipient, you are hereby notified that you have received this communication in error, and that any review, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify The Associated Press immediately by telephone at +1-212-621-1898 and delete this email. Thank you.

[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: "Ostrander, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER,DAVID>

To: Mylott

Richard

CC:

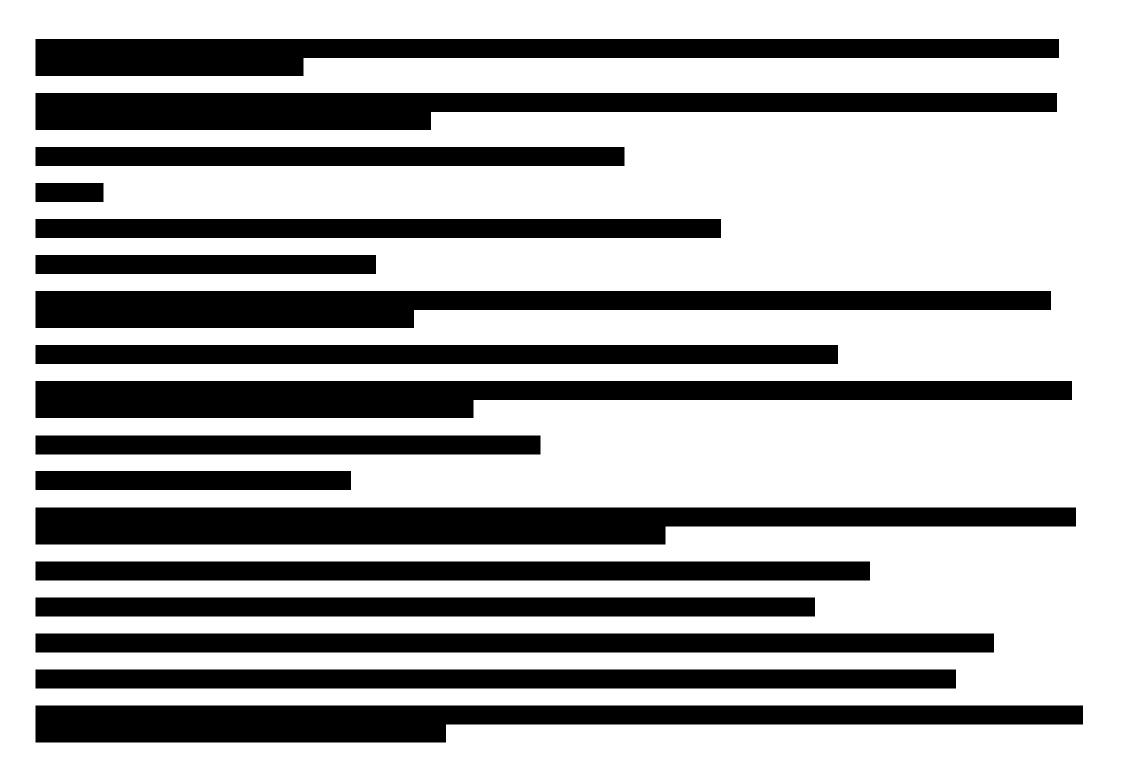
Date: 7/16/2014 3:41:58 PM

Subject: RE: draft response to AP questions
Attachments: Pollution Situation Report Profile.htm

sitrep profile (1).htm

From: Mylott, Richard

Sent: Wednesday, July 16, 2014 3:30 PM **To:** Ostrander, David; Stevenson, Peter **Subject:** draft response to AP questions



From: Wood, Joshua [mailto:JoWood@ap.org]

Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard **Subject:** RE: your call

Hi Rich,

Thanks for getting back to me. I'm trying to get more information about this pipeline spill near Mandaree, North Dakota that occurred in early July. I'm trying to get as much information as possible. Any updates you have collected would be appreciated and I have quite a few specific questions:

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- -What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

Thanks, and hope to hear back from you soon.

Best,

From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 2:01 PM

To: Wood, Joshua **Subject:** your call

Josh—I'm working out of the office today, but checking mail periodically. Let me know how I can help. Thanks!

Rich Mylott

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[IP US DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: "Wood, Joshua" <JoWood@ap.org>

To: Mylott

Richard

CC:

Date: 7/16/2014 12:20:51 PM

Subject: RE: your call

Hi Rich,

Thanks for getting back to me. I'm trying to get more information about this pipeline spill near Mandaree, North Dakota that occurred in early July. I'm trying to get as much information as possible. Any updates you have collected would be appreciated and I have quite a few specific questions:

- -Did the EPA conduct its own air, water and soil tests at the scene of the site? Did the EPA conduct water tests in Lake Sakakawea and Bear Den Bay? If so, what did these tests show? If the EPA did not conduct these tests, did any independent body conduct these tests? By independent, I mean not Crestwood Midstream Partners LP or its subsidiary, nor a company they contracted nor somebody they recommended to the Three Affiliated Tribes.
- -What jurisdiction does the EPA have over of spills on reservations?
- -I know that the state of North Dakota and the counties do not have jurisdiction over these kinds of spills. Are all spills on tribal lands reported to the EPA? If not, what kinds of spills do as far as size, location etc?
- -What did the EPA observe on the scene? Can you provide any reports filed about the incident?
- -The last statement I got from you office said the EPA was still investigating the extent of brine contamination. Did brine get into Lake Sakakawea or the Bear Den Bay? Do we have figures on how much ground was affected by the spill and how much vegetation was killed off? Was wildlife affected?
- -When was the EPA first notified of the Mandaree spill? Who notified the agency?
- -Is the EPA still on site?
- -Crestwood Midstream Partners LP estimates the clean up will take weeks. A spill of a similar size occurred near the town of Alexander, North Dakota in 2006 and was still being cleaned up as of last week. Does the EPA concur with Crestwood's estimated clean-up timeline?
- -How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?
- -What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

Thanks, and hope to hear back from you soon.

Best, Josh

From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 2:01 PM

To: Wood, Joshua **Subject:** your call

Josh—I'm working out of the office today, but checking mail periodically. Let me know how I can help. Thanks!

Rich Mylott

The information contained in this communication is intended for the use of the designated recipients named above. If the reader of this communication is not the intended recipient, you are hereby notified that you have received this communication in error, and that any review, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify The Associated Press immediately by telephone at +1-212-621-1898 and delete this email. Thank you.

[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: <u>Edward.McAllister@thomsonreuters.com</u>

To: Mylott

Richard

CC: <u>Joshua.Schneyer@thomsonreuters.com</u>

Date: 7/15/2014 9:15:01 AM

Subject: Reuters Query - North Dakota spill

Hi Rich,

Ed McAllister here at Reuters in New York, doing some research on the wastewater pipeline spill from a pipeline near Lake Sakakawea, ND on July 8. Wondering if you could give us some detail on what happened and how things stand now.

Do you know how much wastewater was spilled and what the wastewater contained? We are unclear if this was drilling brine or something more complex containing fracking fluids and/or oil residue.

Has the spill been contained?
Has the leak been stopped?
What was the cause of the leak?
Have local residents been impacted?
Do you have an incident report on this?

Any information would be much appreciated. Many thanks.

Best,

Edward McAllister Senior Correspondent Reuters, New York +1 646 223 6221 From: "Glenda Embry" < gembry@mhanation.com>

To: Mylott

Richard

CC:

Date: 7/11/2014 2:10:35 PM

Subject: brine leak on reservation

UPDATE: The Crestwood pipeline spill that leaked 24,000 barrels of saltwater brine in the Bear Den Bay area just north of Mandaree has been contained. Tribal regulatory officials, along with Miranda Jones, Crestwood Vice President of Environmental & Safety Division are on site. They are piping brine out of the Bay to tanks on the hill overlooking the site. Soil and water are being tested and reclamation and clean-up efforts are underway.

Glenda Baker Embry
Public Information Officer
Office of the Chairman
Mandan, Hidatdsa & Arikara Nation
gembry@mhanation.com
Cell 701 421 8049
Ofc 701 627.8242

From: "Emily Guerin" <eguerin@prairiepublic.org>

To: Mylott

Richard

CC:

Date: 7/10/2014 12:50:39 PM

Subject: Re: Reporter with questions on saltwater pipeline spill on Ft.Berthold

Also the tribe says the spill did reach the bay and they're sucking up the saltwater with vacuum pumps (see this news release). Can you confirm that?

On Thu, Jul 10, 2014 at 2:49 PM, Emily Guerin < equerin@prairiepublic.org > wrote:

Ok great. When you saw draw, what exactly do you mean? Small stream?

On Thu, Jul 10, 2014 at 2:36 PM, Mylott, Richard < Mylott.Richard@epa.gov > wrote:

Hi Emily, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is providing technical support to the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

Rich Mylott

USEPA

303-312-6654

From: Emily Guerin [mailto:eguerin@prairiepublic.org] Sent: Thursday, July 10, 2014 10:20 AM To: Mylott, Richard Subject: Reporter with questions on saltwater pipeline spill on Ft. Berthold
Hi Richard,
I'm a reporter with Prairie Public and I'm trying to find out more about the saltwater pipeline spill on the Ft. Berthold reservation in North Dakota Please give me a call as soon as possible at 701-224-1700 ext. 220.
Thanks,
Emily
Emily Guerin
North Dakota Energy Reporter
Inside Energy Prairie Public Broadcasting
701.224.1700 ext.220 (o)
<u>207.798.9505</u> (c)
@guerinemily @InsideEnergyNow
www.insideenergy.org

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Emily Guerin North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

701.224.1700 ext.220 (o) 207.798.9505 (c) @guerinemily | @InsideEnergyNow www.insideenergy.org

-

Emily Guerin North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

701.224.1700 ext.220 (o) 207.798.9505 (c) @guerinemily | @InsideEnergyNow www.insideenergy.org From: "Emily Guerin" <eguerin@prairiepublic.org>

To: Mylott

Richard

CC:

Date: 7/10/2014 12:49:37 PM

Subject: Re: Reporter with questions on saltwater pipeline spill on Ft.Berthold

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Rich Mylott

USEPA

303-312-6654

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Sent: Thursday, July 10, 2014 10:20 AM

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Emily
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North Dakota Energy Reporter
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@guerinemily @InsideEnergyNow
www.insideenergy.org

--

Emily Guerin North Dakota Energy Reporter Inside Energy | Prairie Public Broadcasting

701.224.1700 ext.220 (o) 207.798.9505 (c) @guerinemily | @InsideEnergyNow www.insideenergy.org From: "Goodrick, John" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE:GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D60846EE80B342838CAE5EF1270981F9-GOODRICK.JOHN>
To: Mylott

CC:

Date: 7/10/2014 12:30:30 PM

Richard

Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Rich

I can't get a listing for you on the EPA Workplace search page....I'm going to get a rootbeer float....and then let's talk.

-John

From: Romero, David

Sent: Thursday, July 10, 2014 1:16 PM

To: Mylott, Richard

Cc: Goodrick, John; Williams, Laura

Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:44 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

From: "Romero, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: Mylott

Richard

CC: "Goodrick, John" < Goodrick. John@epa.gov>

"Williams, Laura" <williams.laura@epa.gov>

Date: 7/10/2014 12:16:01 PM

Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Richard, you might already have this information below. John Goodrick has been given the okay to develop a short summary from below to be posted on the Aero Pipeline website. I know that

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:44 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

"McGrath, Shaun" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=EB04DCF0776E4BD494FDD98F6B8BAE94-MCGRATH, SHAUN>

To: Mylott

Richard

CC:

From:

Date: 7/10/2014 8:49:08 AM

Subject: Re: UPDATED AP: Saltwater leak alters water supply for 1 ND town

Thx. Pls keep me posted as i am on my way to ND now and will meet with Dave Glatt this afternoon and can discuss this with him then.

From: Mylott, Richard

Sent: Thursday, July 10, 2014 9:37:39 AM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Romero, David; Morales,

Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: UPDATED AP: Saltwater leak alters water supply for 1 ND town

Fyi. Pete Stevenson is on-scene.

Estimated 1M gallons of saltwater leaks in ND bay

By Associated Press July 9 at 7:54 PM

MANDAREE, N.D. — Around 1 million gallons of saltwater spilled into a North Dakota bay, causing some environmental damage but sparing a nearby lake that provides drinking water for an American Indian reservation, company and tribe officials said Wednesday.

Three Affiliated Tribes Chairman Tex Hall told The Associated Press that an underground pipeline near Mandaree leaked about 24,000 barrels of brine into Bear Den Bay, a tributary to Lake Sakakawea. That Missouri River reservoir provides water to communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water. At least some damage to trees, bushes and grass was reported, but the extent wasn't immediately clear.

Miranda Jones, vice president of environmental safety and regulatory at Houston-based Crestwood Midstream Services Inc., whose subsidiary Aero Pipeline LLC owns the pipeline, said the leak likely started over the weekend but wasn't discovered until Tuesday. The pipeline is not equipped with a system that sends an alert when there's a leak, she said.

"This is something that no company wants on their record, and we are working diligently to clean it up," Jones said.

Tribal leaders switched to an alternative source of water Wednesday but were again tapping Lake Sakakawea after concluding the contamination was limited to the bay, Hall said.

An investigator with the federal Environmental Protection Agency arrived Wednesday at the site.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said damage from the toxic spill could be seen Wednesday.

"We've got dead trees, dead grasses, dead bushes, dying bushes," Roberts said.

Karolin Rockvoy, a McKenzine County Emergency manager, said the spill appeared to have gone undetected for some time.

"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."

The number of saltwater spills in North Dakota has grown with the state's soaring oil production.

North Dakota produced 25.5 million barrels of brine in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed saltwater to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the brine is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

MacPherson reported from Bismarck, N.D.

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North Dakota following a substantial leak from a saltwater pipeline.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

The federal Environmental Protection Agency said an investigator was heading to the site Wednesday afternoon.

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"Stevenson, Peter" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA0210B9CD464B5A8779B165812DD479-STEVENSON, PETER>

To: Mylott

Richard

CC:

From:

Date: 7/10/2014 7:59:53 AM

Subject: Fw: About 1 million gallons of saltwater pipeline leaks on FortBerthold reservation: Energy News (UNCLASSIFIED)

From: Harlon, William D III NWO

Sent: Thursday, July 10, 2014 8:29:36 AM

To: Stevenson, Peter

Subject: FW: About 1 million gallons of saltwater pipeline leaks on Fort Berthold reservation: Energy News (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

I think this article that may have 'upset' the Tribe during conversations yesterday...

----Original Message-----From: Beck, David NWO

Sent: Thursday, July 10, 2014 5:20 AM

To: Lindquist, Todd J NWO; Janis, Larry D NWO; Schenk, Kathryn M NWO; Spooner, Wade D NWO; Buechler, Casey R NWO; Harlon, William D III

NWO; Rocheford, Diana L NWO; Sorensen, Charles G NWO; Payne, Hattie L NWO

Subject: About 1 million gallons of saltwater pipeline leaks on Fort Berthold reservation: Energy News

http://m.bismarcktribune.com/bakken/about-million-gallons-of-saltwater-pipeline-leaks-on-fort-berthold/article_83808754-079c-11e4-82b6-001a4bcf887a.html

Classification: UNCLASSIFIED

Caveats: NONE

From: "Stevenson, Peter" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE:GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA0210B9CD464B5A8779B165812DD479-STEVENSON,PETER>

To: Mylott

Richard

CC:

Date: 7/9/2014 4:03:32 PM

Subject: Re: Brief update to richard mylott

From: Mylott, Richard

Sent: Wednesday, July 9, 2014 4:21:48 PM **To:** Romero, David; Stevenson, Peter

Cc: Williams, Laura

Subject: RE: Brief update to richard mylott

Rich 303-312-6654

From: Romero, David

Sent: Wednesday, July 09, 2014 4:14 PM

To: Mylott, Richard

Subject: Fw: Brief update to richard mylott

Again fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 4:11:12 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

From: "Ostrander, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER,DAVID>

To: <u>Mylott</u>

Richard

CC:

Date: 7/9/2014 3:49:46 PM

Subject: FW: Brief update to richard mylott

From: Williams, Laura

Sent: Wednesday, July 09, 2014 4:46 PM

To: Ostrander, David

Subject: FW: Brief update to richard mylott

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:22 PM **To:** Romero, David; Stevenson, Peter

Cc: Williams, Laura

Subject: RE: Brief update to richard mylott

Rich 303-312-6654

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Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura

Subject: Brief update to richard mylott

Pete

From: "Williams, Laura" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C5480F586C294D1B92A8DE5530679847-WILLIAMS,LAURA>

To: Mylott
Richard

CC:

Date: 7/9/2014 3:30:11 PM

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero, David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: Mylott

Richard

CC:

From:

Date: 7/9/2014 3:17:37 PM

Subject: Fw: Brief update to richard mylott

Fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 4:14:55 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

Pete

"Romero, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: Mylott

Richard

CC:

From:

Date: 7/9/2014 3:13:38 PM

Subject: Fw: Brief update to richard mylott

Again fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 4:11:12 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

Pete

From: "Romero, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: Mylott

Richard

CC:

Date: 7/9/2014 3:07:07 PM

Subject: Fw: Brief update to richard mylott

Fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 3:57:22 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

Pete

"Ostrander, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER,DAVID>

To: Mylott

Richard

CC:

From:

Date: 7/9/2014 11:23:29 AM

Subject: FW: Aero Pipeline leak near Mandaree, ND

From: Stevenson, Peter

Sent: Tuesday, July 08, 2014 2:01 PM

To: Romero, David; Williams, Laura; Ostrander, David **Subject:** Aero Pipeline leak near Mandaree, ND



"Ostrander David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER DAVID> From:

Mylott To: Richard

CC:

Date: 7/9/2014 11:21:20 AM

Subject: FW: draft Hot Topic - Brine/ Oil Pipeline leak near Fort Bertholdintake, Missouri River

From: Williams, Laura

Sent: Wednesday, July 09, 2014 11:07 AM

To: Romero, David Cc: Ostrander, David

Subject: FW: draft Hot Topic - Brine/ Oil Pipeline leak near Fort Berthold intake, Missouri River

From: Mohr, Mindy

Sent: Wednesday, July 09, 2014 10:59 AM

To: Williams, Laura

Subject: FW: draft Hot Topic - Brine/ Oil Pipeline leak near Fort Berthold intake, Missouri River

Mindy Mohr Tribal Liaison 303-312-6525 or toll free 1-800-227-8917 mohr.mindy@epa.gov

FAX 1-877-876-9191 From: Mohr, Mindy

Sent: Wednesday, July 09, 2014 10:40 AM

To: Bahrman, Sarah

Cc: Crosby, Jake; Kahn, Lisa; Gindelberger, Jim; Copeland, Michael; Griese, Andrea Subject: draft Hot Topic - Brine/ Oil Pipeline leak near Fort Berthold intake, Missouri River

Jake, Jim, Michael, this draft is just fyi in case you get questions. Sarah will be finalizing this.

********** Mindy Mohr

Tribal Liaison 303-312-6525 or toll free 1-800-227-8917

mohr mindy@epa gov

FAX 1-877-876-9191

"Wiser, Nathan" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F7333BDCD2DF46C1976275004E7AB7E2-WISER,NATHAN>

To: Mylott

From:

Richard; Chalfant

<u>Mark</u>

CC: "Gibbons, Dayna" < Gibbons. Dayna@epa.gov>

"Briskin, Jeanne" < Briskin.Jeanne@epa.gov>
"Burden, Susan" < burden, susan@epa.gov>

"McClain-Vanderpool, Lisa" < Mcclain-Vanderpool.Lisa@epa.gov>

Date: 7/11/2014 8:34:14 AM

Subject: FW: Associated Press seeks info on oil saltwater

Hi Rich and Mark,

I forwarded this email to Dayna Gibbons in HQ and I believe she has forwarded this to HQ press office. Keeping R8 interests in the loop too. I don't have specific knowledge of the incident. Based on a VM I deleted by mistake, I think the reporter wishes to understand the regulatory requirements on pipelines carrying oilfield salt water. I would end up passing him to the State of ND for such answers, if the question concerns pipelines.

Nathan Wiser, Environmental Scientist
Office of Research and Development, Office of Science Policy
303-312-6211 office
wiser.nathan@epa.gov

mailing address: EPA Region 8 (8ENF-UFO) 1595 Wynkoop Street Denver, CO 80202

From: Gibbons, Dayna

Sent: Friday, July 11, 2014 8:58 AM

To: Wiser, Nathan

Subject: RE: Associated Press seeks info on oil saltwater

I'll send to the press office. Let them know that they need to work through the press office to set up a conversation and that you've forwarded it along.

Thanks!

From: Wiser, Nathan

Sent: Friday, July 11, 2014 10:56 AM

To: Gibbons, Dayna

Cc: Briskin, Jeanne; Burden, Susan

Subject: FW: Associated Press seeks info on oil saltwater

Hi Dayna,

This just came in.

Nathan Wiser, Environmental Scientist
Office of Research and Development, Office of Science Policy
303-312-6211 office
wiser.nathan@epa.gov

mailing address: EPA Region 8 (8ENF-UFO) 1595 Wynkoop Street Denver, CO 80202

From: Flesher, John [mailto:jflesher@ap.org]

Sent: Friday, July 11, 2014 8:38 AM

To: Wiser, Nathan

Subject: Associated Press seeks info on oil saltwater

Hello, Nathan:

I am an Associated Press environmental reporter and am working with colleagues on covering the aftermath of an oil saltwater/brine spill in North Dakota. I'm exploring a number of reporting angles regarding saltwater and its handling, and was hoping you could provide some information. Could you spare a few minutes today for a phone call to discuss? I'd greatly appreciate the help.

Thanks and regards,

John Flesher
The Associated Press
120 W. Front Street
Traverse City, Mich. 49684

Office: 231-929-4180 Cell: 231-944-9133

The information contained in this communication is intended for the use of the designated recipients named above. If the reader of this communication is not the intended recipient, you are hereby notified that you have received this communication in error, and that any review, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify The Associated Press immediately by telephone at +1-212-621-1898 and delete this email. Thank you.

[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: "Bahrman, Sarah" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1D493CF492ED4FC0BE275A699826A64C-BAHRMAN,SARAH>

To: Mylott

Richard; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura; Romero

David;Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin; Thomas

Deb;Videtich

Callie; Hoskie

Sadie:Palomares

Art:Pardue-Welch

Kimberly:Merida

Mario

CC:

Date: 7/11/2014 2:22:09 PM

Subject: UPDATE: Mandaree, ND Drinking Water

I just spoke with Charles Cech at the ND DOH Lab, who provided some preliminary results from the raw water and treated drinking water samples. Total Dissolved Solids (calculated from conductivity), sodium, and total alkalinity were all within normal ranges, indicating no impact from the brine water to the drinking water supply. Diesel range organics tests were non-detect for petroleum products, again indicating no impact to the drinking water supply. The plant will continue operating normally. The operator and I discussed that there is no need to collect additional samples at this time.

Please let me know if you have any questions.

Sarah E. Bahrman | Unit Chief, Drinking Water | U.S. Environmental Protection Agency - Region 8 (p) 303.312.6243 | (c) 303.903.8515 | (f) 877.876.9101

From: Bahrman, Sarah

Sent: Thursday, July 10, 2014 3:43 PM

To: Mylott, Richard; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Romero, David; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Thomas, Deb; Videtich, Callie; Hoskie, Sadie; Palomares, Art; Pardue-Welch, Kimberly; Merida, Mario

Subject: UPDATE: Mandaree, ND Drinking Water

I just spoke with Jack Sorum of IHS and Bruce Fox, the head operator of the Mandaree Water Plant. Unfortunately they don't yet have any results from samples collected this morning, but hope to have that information first thing tomorrow. Bruce will call me as soon as he has any data and I will send that information out to you all. Jack and Bruce did verify that the intake pumps are on and the plant is back to normal operations. They shut the intake down for some time yesterday and were able to treat water from a 1M gallon raw water tank temporarily to continue to provide water to the town of Mandaree.

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Sent: Thursday, July 10, 2014 12:23 PM

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Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin; Thomas, Deb; Videtich, Callie; Hoskie, Sadie

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Quick Update:

According to Pete Stevenson, the Army Corps of Engineers was out on the lake in the area of the intake to the Mandaree water plant and did not notice any visible sheen or other indicators that contamination had reached the water plant. As a precautionary measure, the water operators have collected samples from the area around the intake and from the treated water and will test for diesel range organics, sodium (as an indicator of total dissolved solids or brine), metals, and radiologicals. Samples are at the state lab in Bismarck and we should get some preliminary results later today.

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Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: UPDATED AP: Saltwater leak alters water supply for 1 ND town

Fyi. Pete Stevenson is on-scene.

Estimated 1M gallons of saltwater leaks in ND bay

By Associated Press July 9 at 7:54 PM

MANDAREE, N.D. — Around 1 million gallons of saltwater spilled into a North Dakota bay, causing some environmental damage but sparing a nearby lake that provides drinking water for an American Indian reservation, company and tribe officials said Wednesday.

Three Affiliated Tribes Chairman Tex Hall told The Associated Press that an underground pipeline near Mandaree leaked about 24,000 barrels of brine into Bear Den Bay, a tributary to Lake Sakakawea. That Missouri River reservoir provides water to communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water. At least some damage to trees, bushes and grass was reported, but the extent wasn't immediately clear.

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"This is something that no company wants on their record, and we are working diligently to clean it up," Jones said.

Tribal leaders switched to an alternative source of water Wednesday but were again tapping Lake Sakakawea after concluding the contamination was limited to the bay, Hall said.

An investigator with the federal Environmental Protection Agency arrived Wednesday at the site.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said damage from the toxic spill could be seen Wednesday.

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"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."

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That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the brine is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

MacPherson reported from Bismarck, N.D.

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Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

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By Associated PressJuly 9 at 5:31 PM

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Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

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Art:Pardue-Welch

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Mario

CC:

Date: 7/10/2014 2:42:53 PM

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Fyi.

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Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

The federal Environmental Protection Agency said an investigator was heading to the site Wednesday afternoon.

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"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."

The number of saltwater spills in North Dakota has grown with the state's soaring oil production.

North Dakota produced 25.5 million barrels of briny water in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed briny water to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western

North Dakota, where the briny water is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

From: "Bahrman, Sarah" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1D493CF492ED4FC0BE275A699826A64C-BAHRMAN,SARAH>

To: Mylott

Richard; Mohr

Mindy; McClain-Vanderpool

Lisa;McGrath

Shaun; Cantor

Howard; Card

Joan; Ostrander

David; Williams

Laura; Stevenson

Peter;Romero

David; Morales

Monica; Mitre

Alfreda; Phillips

Gregory; Hestmark

Martin; Videtich

Callie:Thomas

Deb:Hoskie

Sadie

CC:

Date: 7/10/2014 7:09:43 AM

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Hi all -

Jack Sorum, a drinking water treatment engineer with Indian Health Service, is on site in Mandaree this morning to evaluate the impact to the drinking water intake, what samples have been or should be collected in that area, and the status of the water supply. Jack has Pete Stevenson's cell phone number so they can coordinate.

I will plan to send an update later this morning once we have more information. Please let me know if you have any questions. Thanks,

Sarah E. Bahrman | Unit Chief, Drinking Water | U.S. Environmental Protection Agency - Region 8 (p) 303.312.6243 | (c) 303.903.8515 | (f) 877.876.9101

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

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Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

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Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

From: "Stavnes, Sandra" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE:GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D64190DCB8D24B9B8F2B58DD22419836-STAVNES,SANDRA>

To: Mylott

Richard;Ostrander

David;Stevenson

Peter:Mitre

Alfreda;Romero
David;Card

Joan

CC: "Smith, Paula" <Smith.Paula@epa.gov>

"McClain-Vanderpool, Lisa" < Mcclain-Vanderpool. Lisa@epa.gov>

"McGrath, Shaun" < McGrath.Shaun@epa.gov>
"Romero, David" < Romero.David@epa.gov>

Date: 7/10/2014 11:15:23 AM

Subject: RE: EPA statement on brine spill

Thanks Rich.

Sandy

.....

Sandra A Stavnes

Deputy Assistant Regional Administrator Ecosystems Protection and Remediation (8EPR)

USEPA Region 8 1595 Wynkoop St Denver *CO* 80202

email: <u>stavnes sandra@epa gov</u> phone: 303-312-6117

From: Mylott, Richard

Sent: Thursday, July 10, 2014 12:07 PM

To: Ostrander, David; Stevenson, Peter; Stavnes, Sandra; Mitre, Alfreda; Romero, David; Card, Joan

Cc: Smith, Paula; McClain-Vanderpool, Lisa; McGrath, Shaun

Subject: FW: EPA statement on brine spill

From: Mylott, Richard

Sent: Thursday, July 10, 2014 12:01 PM

To: 'apbismarck@ap.org'

Subject: EPA statement on brine spill

EPA is providing technical support to the Tribes as it leads assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessment activity will take place today.

From: "Stevenson, Peter" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA0210B9CD464B5A8779B165812DD479-STEVENSON,PETER>

To: Mylott

Richard; Ostrander

David; Williams

Laura; Hestmark

Martin; Stavnes

Sandra; Mitre

Alfreda; McGrath

Shaun; Card

<u>Joan</u>

CC: "Smith, Paula" <Smith.Paula@epa.gov>

"McClain-Vanderpool, Lisa" < Mcclain-Vanderpool.Lisa@epa.gov>

Date: 7/18/2014 3:08:43 PM

Subject: RE: InsideClimate News: 'Saltwater' From North DakotaFracking Spill Is Not What's Found in the Ocean

From: Mylott, Richard

Sent: Friday, July 18, 2014 3:53 PM

To: Ostrander, David; Stevenson, Peter; Williams, Laura; Hestmark, Martin; Stavnes, Sandra; Mitre, Alfreda; McGrath, Shaun; Card, Joan

Cc: Smith, Paula; McClain-Vanderpool, Lisa

Subject: InsideClimate News: 'Saltwater' From North Dakota Fracking Spill Is Not What's Found in the Ocean

Fyi...

'Saltwater' From North Dakota Fracking Spill Is Not What's Found in the

Ocean

The salty drilling waste is said to contain heavy metals in concentrations that might not meet drinking water standards, as well as radioactive material.

By Lisa Song, InsideClimate News



In early July, a million gallons of salty drilling waste spilled from a pipeline onto a steep hillside in western North Dakota's Fort Berthold Reservation. The waste—a byproduct of oil and gas production—has now reached a tributary of Lake Sakakawea, which provides drinking water to the reservation.

The oil industry called the accident a "saltwater" spill. But the liquid that entered the lake bears little resemblance to what's found in the ocean.

The industry's wastewater is five to eight times saltier than seawater, said Bill Kappel, a hydrogeologist emeritus at the U.S. Geological Survey. It's salty enough to sting the human tongue, and contains heavy metals in concentrations that might not meet drinking water standards. The briny mix can also include radioactive material. Heavy metals and radioactive materials are toxic at certain concentrations.

"You don't want to be drinking this stuff," Kappel said.

The North Dakota spill has killed vegetation and contaminated the soil, and cleanup crews are working on remediation and monitoring. In an email, a representative of Crestwood Midstream Partners—the parent company of Arrow Pipelines, the company responsible for the spill—said there is "no evidence of an impact to the local water supply."

Jul 16, 2014

Confusion persists over the wastewater's environmental and health effects because little is known about the composition of the spilled waste. The compounds it contains vary widely depending on local geology and drilling practices. And there are inconsistencies even within the industry over the definition of "saltwater," which may or may not contain hydraulic fracturing (fracking) fluids.

The "terms are used very loosely, probably on purpose," Kappel said.



SOURCE: InsideClimate News research

PAUL HORN / InsideClimate News Click to enlarge

Jim Ladlee, associate director of the Penn State Marcellus Center for Outreach and Research, said oilfield definitions vary by company, and the same operator may use different

words for the same waste product in different parts of the country.

Both Ladlee and Kappel said it's impossible to understand the potential impact in North Dakota without additional information about what, exactly, was in the pipeline.

The Crestwood representative did not answer questions about the saltwater composition. Because the spill occurred on tribal land, Alison Ritter, a spokeswoman at the North Dakota Department of Mineral Resources, directed all questions to the Mandan, Hidatsa and Arikara Nation, which did not respond by deadline.

Here's what we do know:

The industry-coined term saltwater usually refers to three types of waste.

1.) The naturally occurring brines located in oil and gas formations hundreds or thousands of feet underground, known as produced water. The brines consist of water and dissolved chemicals leached from the surrounding rock. These include:

Sodium and chloride (the compounds that make up table salt).

Heavy metals such as chromium, cobalt, nickel, copper, zinc, arsenic, selenium, silver, cadmium, antimony, mercury, thallium and lead.

Radioactive material from buried rock.

Other dissolved compounds such as barium, calcium and bromide.

Once a well begins operating, produced water flows out of the wellbore along with the oil and/or gas. The mixture is separated at the surface, and the produced water is trucked or piped away for disposal through "saltwater pipelines."

2.) A mixture of produced water and fracking fluids, called flowback. Fracking fluids contain millions of gallons of water, millions of pounds of sand and thousands of gallons of chemical additives, some of which are toxic.

Flowback comes out of the well during the first two to three weeks after it's fracked. Like produced water, the flowback is shipped via pipeline for disposal in injection wells or waste pits.

3.) Produced water, which has been treated to remove almost everything but salt and is reused in the fracking process. Ladlee, the Marcellus Outreach representative, said produced water is sent to treatment plants, which remove most of the dissolved material except for the salt. The treated salty mixture is diluted with fresh water, and fracking chemicals are added to create a new batch of fracking fluid, which is used to frack another well. If the North Dakota pipeline was carrying fluid from a treatment facility to a well site for recycling, Ladlee said, then the saltwater would contain very salty water, but with few heavy metals and radioactive material.

The North Dakota spill caught media attention because it was unusually large. But smaller "saltwater" spills occur more frequently. <u>According to the Associated Press</u>, there were 74 such spills in North Dakota last year, spilling a total of 924,000 gallons.

InsideClimate News intern Hannah Robbins contributed to this story.

See Also

From: "Ostrander, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADBD11BCE2524E0F9F221E6A0E3D1858-OSTRANDER,DAVID>

To: Mylott

Richard; Stevenson

<u>Peter</u>

CC: "Williams, Laura" < Williams.Laura@epamail.epa.gov>

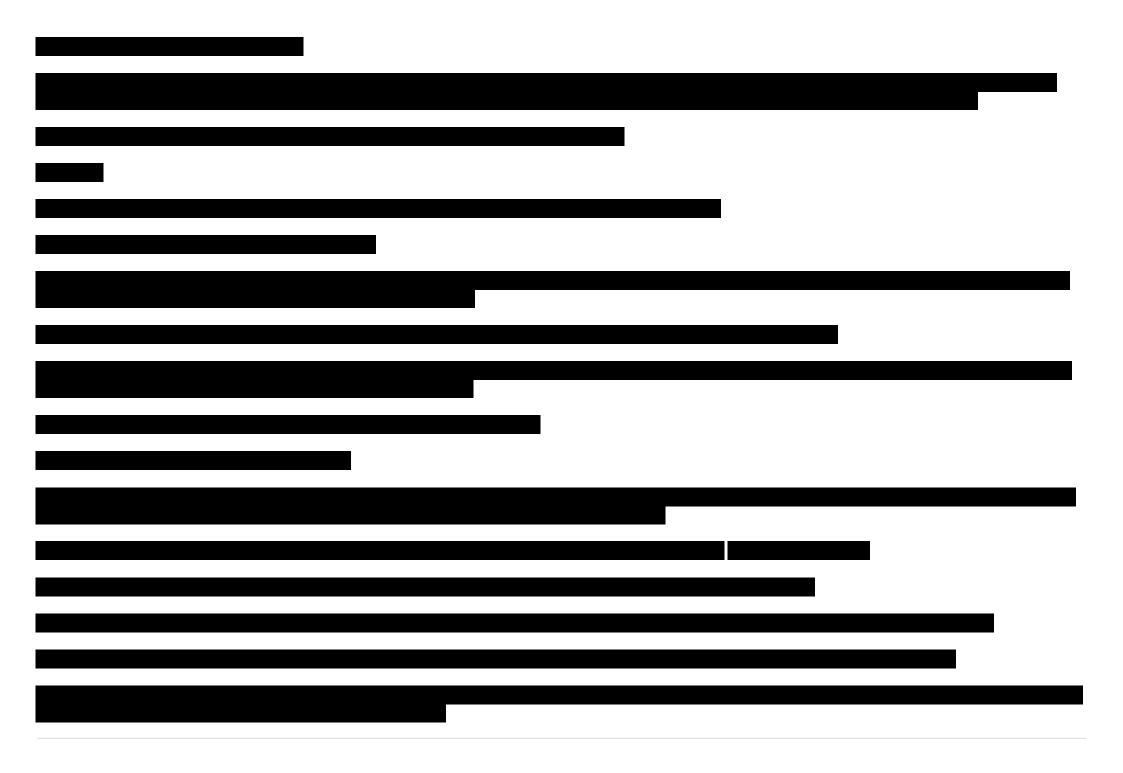
Date: 7/16/2014 2:54:47 PM

Subject: RE: draft response to AP questions

See below

From: Mylott, Richard

Sent: Wednesday, July 16, 2014 3:30 PM **To:** Ostrander, David; Stevenson, Peter **Subject:** draft response to AP questions



From: Wood, Joshua [mailto:JoWood@ap.org]

Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard Subject: RE: your call

Hi Rich,

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- -How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?
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Thanks, and hope to hear back from you soon.

Best, Josh From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 2:01 PM

To: Wood, Joshua **Subject:** your call

Josh—I'm working out of the office today, but checking mail periodically. Let me know how I can help. Thanks!

Rich Mylott

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[IP US DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: "Stevenson, Peter" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CA0210B9CD464B5A8779B165812DD479-STEVENSON,PETER>

To: Ostrander

David; Mylott

Richard

CC: "Williams, Laura" < williams.laura@epa.gov>

Date: 7/17/2014 5:19:22 AM

Subject: RE: draft response to AP questions

From: Ostrander, David

Sent: Wednesday, July 16, 2014 3:55 PM **To:** Mylott, Richard; Stevenson, Peter

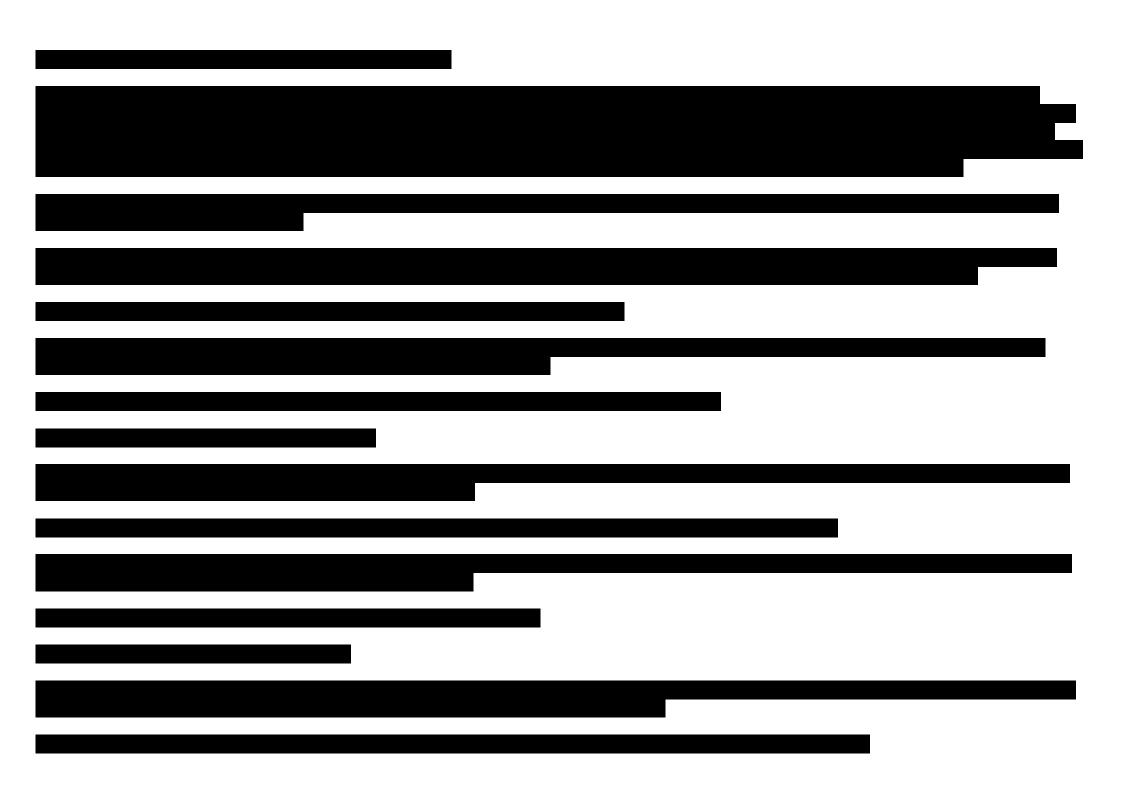
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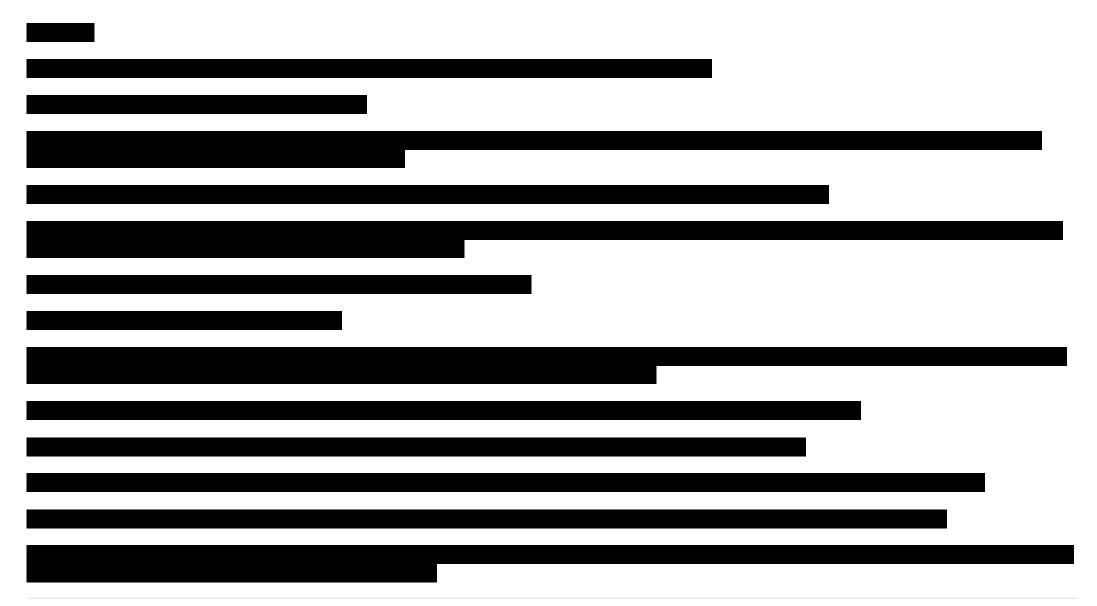
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"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP From: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD> <u>Ostrander</u> To: David;Stevenson Peter: CC: Date: 7/16/2014 3:29:33 PM Subject: draft response to AP questions



From: Wood, Joshua [mailto:JoWood@ap.org]
Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard **Subject:** RE: your call

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Sent: Wednesday, July 16, 2014 2:01 PM

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From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Ostrander

David; Stevenson

Peter;

CC:

Date: 7/16/2014 2:15:34 PM

Subject: AP on ND spill

From: Wood, Joshua [mailto:JoWood@ap.org]
Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard Subject: RE: your call

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From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Ostrander

David;Stevenson

Peter;Stavnes

Sandra;Mitre

Alfreda;Romero

David; Card

<u>Joan</u>

CC: Smith

Paula; McClain-Vanderpool

Lisa;McGrath

Shaun

Date: 7/10/2014 12:06:28 PM

Subject: FW: EPA statement on brine spill

Fyi. I reached the Tribes (Glenda is public information and she spoke with Tex) and confirmed the summary of Pete's initial assessment—below—was consistent with the status of activity at the spill site before sharing with AP.

From: Mylott, Richard

Sent: Thursday, July 10, 2014 12:01 PM

To: 'apbismarck@ap.org'

Subject: EPA statement on brine spill

EPA is providing technical support to the Tribes as it leads assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessment activity will take place today.

"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT.RICHARD>

To: <u>Ostrander</u>

From:

David;Stevenson

Peter; Williams

Laura; Hestmark

Martin; Stavnes

Sandra; Mitre

Alfreda; McGrath

Shaun; Card

<u>Joan</u>

CC: Smith

Paula; McClain-Vanderpool

Lisa

Date: 7/18/2014 3:52:57 PM

Subject: InsideClimate News: 'Saltwater' From North Dakota FrackingSpill Is Not What's Found in the Ocean

Fyi...

'Saltwater' From North Dakota Fracking Spill Is Not What's Found in the Ocean

The salty drilling waste is said to contain heavy metals in concentrations that might not meet drinking water standards, as well as radioactive material.

By Lisa Song, InsideClimate News

Jul 16, 2014



In early July, a million gallons of salty drilling waste spilled from a pipeline onto a steep hillside in western North Dakota's Fort Berthold Reservation. The waste—a byproduct of oil and gas production—has now reached a tributary of Lake Sakakawea, which provides drinking water to the reservation.

The oil industry called the accident a "saltwater" spill. But the liquid that entered the lake bears little resemblance to what's found in the ocean.

The industry's wastewater is five to eight times saltier than seawater, said Bill Kappel, a hydrogeologist emeritus at the U.S. Geological Survey. It's salty enough to sting the human tongue, and contains heavy metals in concentrations that might not meet drinking water standards. The briny mix can also include radioactive material. Heavy metals and radioactive materials are toxic at certain concentrations.

"You don't want to be drinking this stuff," Kappel said.

The North Dakota spill has killed vegetation and contaminated the soil, and cleanup crews are working on remediation and monitoring. In an email, a representative of Crestwood Midstream Partners—the parent company of Arrow Pipelines, the company responsible for the spill—said there is "no evidence of an impact to the local water supply."

Confusion persists over the wastewater's environmental and health effects because little is known about the composition of the spilled waste. The compounds it contains vary widely depending on local geology and drilling practices. And there are inconsistencies even within the industry over the definition of "saltwater," which may or may not contain hydraulic fracturing (fracking) fluids.

The "terms are used very loosely, probably on purpose," Kappel said.



SOURCE: InsideClimate News research

PAUL HORN / InsideClimate News Click to enlarge

Jim Ladlee, associate director of the Penn State Marcellus Center for Outreach and Research, said oilfield definitions vary by company, and the same operator may use different words for the same waste product in different parts of the country.

Both Ladlee and Kappel said it's impossible to understand the potential impact in North Dakota without additional information about what, exactly, was in the pipeline.

The Crestwood representative did not answer questions about the saltwater composition. Because the spill occurred on tribal land, Alison Ritter, a spokeswoman at the North Dakota Department of Mineral Resources, directed all questions to the Mandan, Hidatsa and Arikara Nation, which did not respond by deadline.

Here's what we do know:

The industry-coined term saltwater usually refers to three types of waste.

1.) The naturally occurring brines located in oil and gas formations hundreds or thousands of feet underground, known as produced water. The brines consist of water and dissolved chemicals leached from the surrounding rock. These include:

Sodium and chloride (the compounds that make up table salt).

Heavy metals such as chromium, cobalt, nickel, copper, zinc, arsenic, selenium, silver, cadmium, antimony, mercury, thallium and lead.

Radioactive material from buried rock.

Other dissolved compounds such as barium, calcium and bromide.

Once a well begins operating, produced water flows out of the wellbore along with the oil and/or gas. The mixture is separated at the surface, and the produced water is trucked or piped away for disposal through "saltwater pipelines."

2.) A mixture of produced water and fracking fluids, called flowback. Fracking fluids contain millions of gallons of water, millions of pounds of sand and thousands of gallons of chemical additives, some of which are toxic.

Flowback comes out of the well during the first two to three weeks after it's fracked. Like produced water, the flowback is shipped via pipeline for disposal in injection wells or waste pits.

3.) Produced water, which has been treated to remove almost everything but salt and is reused in the fracking process. Ladlee, the Marcellus Outreach representative, said produced water is sent to treatment plants, which remove most of the dissolved material except for the salt. The treated salty mixture is diluted with fresh water, and fracking chemicals are added to create a new batch of fracking fluid, which is used to frack another well. If the North Dakota pipeline was carrying fluid from a treatment facility to a well site for recycling, Ladlee said, then the saltwater would contain very salty water, but with few heavy metals and radioactive material.

The North Dakota spill caught media attention because it was unusually large. But smaller "saltwater" spills occur more frequently. <u>According to the Associated Press</u>, there were 74 such spills in North Dakota last year, spilling a total of 924,000 gallons.

InsideClimate News intern Hannah Robbins contributed to this story.

See Also

From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: <u>Ostrander</u>

David; Williams

Laura;

CC:

Date: 7/9/2014 5:12:32 PM

Subject: FW: Brief update to richard mylott

From: Stevenson, Peter

Sent: Wednesday, July 09, 2014 5:04 PM

To: Mylott, Richard

Subject: Re: Brief update to richard mylott

From: Mylott, Richard

Sent: Wednesday, July 9, 2014 4:21:48 PM **To:** Romero, David; Stevenson, Peter

Cc: Williams, Laura

Subject: RE: Brief update to richard mylott

Rich

303-312-6654

From: Romero, David

Sent: Wednesday, July 09, 2014 4:14 PM

To: Mylott, Richard

Subject: Fw: Brief update to richard mylott

Again fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 4:11:12 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

photos.

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

David Romero Emergency Response Program EPA Region 8 (303)312-6572 From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-

MYLOTT.RICHARD>

To: Romero

David:Stevenson

Peter:

CC: Williams

Laura:

Date: 7/9/2014 4:21:46 PM

Subject: RE: Brief update to richard mylott

Rich

303-312-6654

From: Romero, David

Sent: Wednesday, July 09, 2014 4:14 PM

To: Mylott, Richard

Subject: Fw: Brief update to richard mylott

Again fyi

From: Stevenson, Peter

Sent: Wednesday, July 9, 2014 4:11:12 PM

To: Romero, David

Subject: Re: Brief update to richard mylott

From: Romero, David

Sent: Wednesday, July 9, 2014 3:49:24 PM

To: Stevenson, Peter

Cc: Mylott, Richard; Williams, Laura **Subject:** Brief update to richard mylott

Pete

David Romero Emergency Response Program EPA Region 8 (303)312-6572 From: "Stavnes, Sandra" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D64190DCB8D24B9B8F2B58DD22419836-STAVNES,SANDRA>

To: Romero

<u>David;Stevenson</u> <u>Peter;Ostrander</u> <u>David;Williams</u>

Laura

CC: "Goodrick, John" < Goodrick. John@epa.gov>

"Mylott, Richard" < Mylott.Richard@epa.gov>

Date: 7/10/2014 9:06:29 AM

Subject: RE: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Sandy

Sandra A. Stavnes

Deputy Assistant Regional Administrator

Ecosystems Protection and Remediation (8EPR)

USEPA Region 8 1595 Wynkoop St Denver, CO 80202

email: stavnes.sandra@epa.gov

phone: 303-312-6117

From: Romero, David

Sent: Thursday, July 10, 2014 9:21 AM

To: Stevenson, Peter; Ostrander, David; Williams, Laura

Cc: Goodrick, John; Stavnes, Sandra

Subject: RE: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:44 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill



From: "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT.RICHARD>

To: Sider

Alison <ALISON.SIDER@wsi.com>

CC:

Date: 7/10/2014 2:06:57 PM Subject: RE: Press Inquiry

Alison—I understand the Tribe has issued a release that updates some of the info I had from this morning.

https://www.facebook.com/NorthSegmentOfTheThreeAffiliatedTribes/photos/a.464307356975217.1073741826.448088225263797/702940339778583/?type=1&theater

From: Mylott, Richard

Sent: Thursday, July 10, 2014 1:45 PM

To: 'Sider, Alison'

Subject: RE: Press Inquiry

Hi Alison, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is supporting the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

From: Sider, Alison [mailto:ALISON.SIDER@wsj.com]

Sent: Thursday, July 10, 2014 8:53 AM

To: Mylott, Richard
Subject: Press Inquiry

Hi Rich,

I was wondering if you had any information you could share about the saltwater pipeline spill at the Fort Berthold Reservation earlier this week?

Thanks very much, Alison Sider

Alison Sider
THE WALL STREET JOURNAL
alison.sider@wsj.com
(o) 713-547-9207
(m) 832-506-0429
Twitter: @alyrose

"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: <u>Sider</u>

Alison <ALISON.SIDER@wsj.com>

CC:

From:

Date: 7/10/2014 1:44:41 PM

Subject: RE: Press Inquiry

Hi Alison, the Tribes will be the best source for current information. Here's what I have in terms of status from early this am.

EPA is supporting the Tribes as they lead assessment and cleanup activities at the spill site. There are several parties involved in response activities. The most recent spill estimate is 24,000 barrels of brine and condensate. The majority of the spill is pooled on the ground, soaked into the soil, and contained behind beaver dams in a nearby draw. The line has been shut down and steps have been taken to contain the discharge in the draw, including the placement of boom material at the mouth of the draw. Currently, the primary concern is the high salinity of the discharge and impacts on soil, vegetation and water in the draw. Cleanup efforts will focus on pumping and flushing fresh water through a series of beaver ponds along the draw. We have no confirmed reports of brine reaching the bay or lake, however, additional assessments are taking place today.

From: Sider, Alison [mailto:ALISON.SIDER@wsj.com]

Sent: Thursday, July 10, 2014 8:53 AM

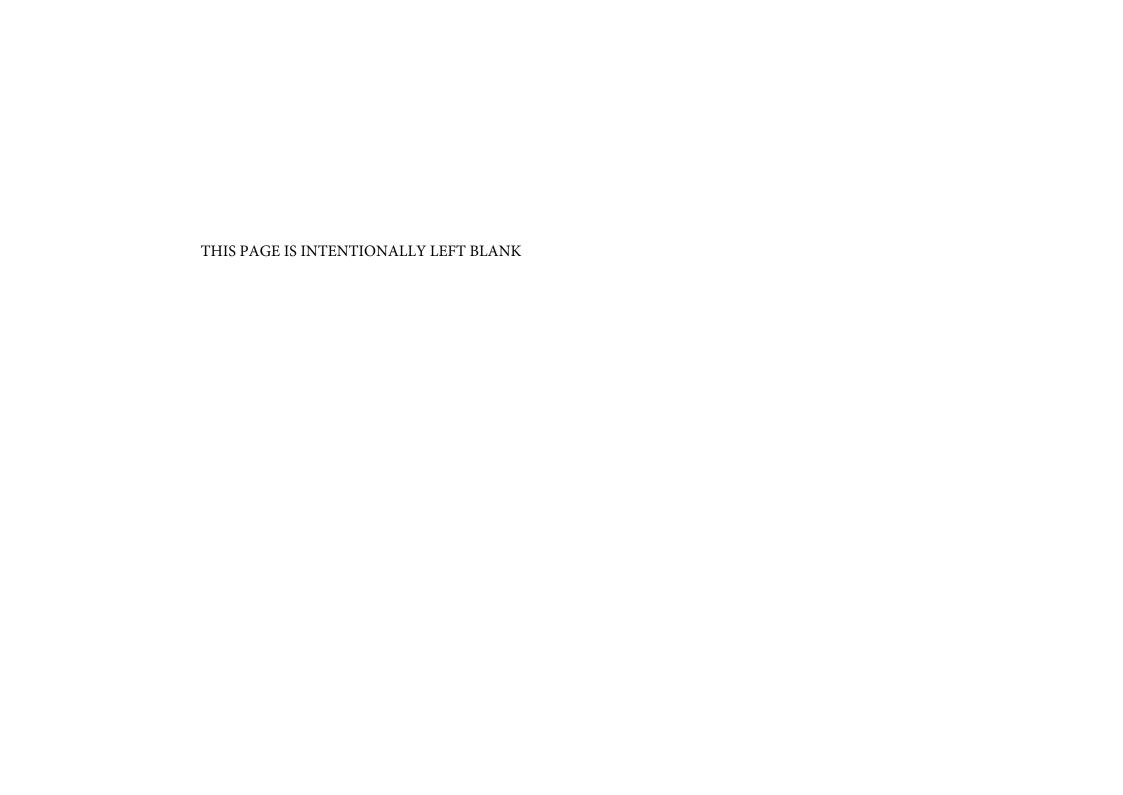
To: Mylott, Richard **Subject:** Press Inquiry

Hi Rich,

I was wondering if you had any information you could share about the saltwater pipeline spill at the Fort Berthold Reservation earlier this week?

Thanks very much, Alison Sider

Alison Sider
THE WALL STREET JOURNAL
alison.sider@wsj.com
(0) 713-547-9207
(m) 832-506-0429
Twitter: @alyrose



"McClain-Vanderpool, Lisa" </O=EXCHANGELABS/OU=EXCHANGE;ADMINISTRATIVE GROUP From:

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=972A6F345C3C4E3099FE8EC166EBC712-LVANDERP>

To: Stavnes

Sandra

CC: "Ostrander, David" < Ostrander, David@epa.gov>

"Williams, Laura" <williams.laura@epa.gov>

"Hestmark, Martin" < Hestmark. Martin@epa.gov>

"Smith, Paula" <Smith.Paula@epa.gov>

"Mylott, Richard" < Mylott.Richard@epa.gov>

7/25/2014 10:08:58 AM Date:

Subject: RE: photos from crestwood spill - osc.net?

Will do. Lisa

From: Stavnes, Sandra

Sent: Friday, July 25, 2014 11:07 AM To: McClain-Vanderpool, Lisa

Cc: Ostrander, David; Williams, Laura; Hestmark, Martin Subject: FW: photos from crestwood spill - osc.net?

Lisa

Thanks. Sandy

Sandra A. Stavnes Deputy Assistant Regional Administrator Ecosystems Protection and Remediation (8EPR) **USEPA** Region 8 1595 Wynkoop St

Denver, CO 80202

email: stavnes.sandra@epa.gov

phone: 303-312-6117

From: Stevenson, Peter

Sent: Friday, July 25, 2014 7:09 AM

To: Ostrander, David

Cc: Stavnes, Sandra; Williams, Laura

Subject: RE: photos from crestwood spill - osc.net?

From: Ostrander, David

Sent: Thursday, July 24, 2014 4:36 PM

To: Stevenson, Peter

Cc: Stavnes, Sandra; Williams, Laura; McClain-Vanderpool, Lisa

Subject: RE: photos from crestwood spill - osc.net?

Thanks

From: Stevenson, Peter

Sent: Thursday, July 24, 2014 4:29 PM

To: Ostrander, David

Subject: RE: photos from crestwood spill - osc.net?

From: Ostrander, David

Sent: Thursday, July 24, 2014 3:38 PM

To: Stevenson, Peter

Cc: McClain-Vanderpool, Lisa

Subject: FW: photos from crestwood spill - osc.net?

From: McClain-Vanderpool, Lisa **Sent:** Thursday, July 24, 2014 2:15 PM

To: Ostrander, David

Subject: photos from crestwood spill - osc.net?

From: "McClain-Vanderpool, Lisa" </O=EXCHANGELABS/OU=EXCHANGE;ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=972A6F345C3C4E3099FE8EC166EBC712-LVANDERP>

To: <u>Stavnes</u>

Sandra; Bahrman

Sarah

CC: "Smith, Paula" <Smith.Paula@epa.gov>

"Mylott, Richard" < Mylott.Richard@epa.gov>
"Williams, Laura" < williams.laura@epa.gov>

Date: 7/11/2014 7:36:56 AM

Subject: ACTION: AP inquiry on ND - early deadline this AM

James MacPherson from AP would like to know --

1) Is EPA relying on the company responsible for the spill for testing? Or are we (or the tribe?) doing it independently?

2) Have we tested both upstream and down?

3) Have we tested the Missouri River? (He claims the state thinks it has reached the river).

4) If we've tested, what did we find? What is in it?

He has an early deadline on this - so before noon -

I left a vmail for Pete Stevenson on his cell.

Lisa

From: "Romero, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: Stavnes

Sandra; Mylott

Richard;Bahrman

Sarah:Mohr

Mindy; Hestmark
Martin; Ostrander

David

CC:

Date: 7/10/2014 8:48:30 AM

Subject: FW: Arrow Pipeline Spill, aka Aero Pipeline Spill, akaCrestwood Midstream Partners Pipeline Spill

Pete Stevenson (OSC) on site for the Aero Pipeline Spill sent this message out this morning. Some of you probably already received this.

From: Stevenson, Peter

Sent: Thursday, July 10, 2014 6:44 AM

To: Ostrander, David; Williams, Laura; Romero, David

Subject: Arrow Pipeline Spill, aka Aero Pipeline Spill, aka Crestwood Midstream Partners Pipeline Spill



From: "McClain-Vanderpool, Lisa" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=972A6F345C3C4E3099FE8EC166EBC712-LVANDERP>

To: Stavnes

Sandra;Ostrander
"David; Stevenson"

<u>Peter</u>

CC: Mylott

"Richard; Smith"

Paula Paula

Date: 7/11/2014 1:18:53 PM

Subject: FW: URGENT request for epa rep interview, The Takeaway, WNYC

From: Tyler Adams [mailto:tyler.thetakeaway@gmail.com]

Sent: Friday, July 11, 2014 11:40 AM To: McClain-Vanderpool, Lisa

Subject: URGENT request for epa rep interview, The Takeaway, WNYC

Dear Lisa,

I just left you a voicemail.

I am a producer for The Takeaway, a US public radio news analysis program, hosted by John Hockenberry. We are produced by WNYC, in partnership with The New York Times. We are broadcast nationally by over 200 partner stations, and have an audience of 2 million listeners.

I am writing to request an interview with an EPA official on the ground in North Dakota to discuss the pipeline spillage discovered this week with us Monday at 8:30 AM CDT. The interview would last **about 5 minutes**.

Please let me know if this would be possible to arrange! All of my contact numbers are below.

Looking forward to hearing from you!

Best,

Tyler

Tyler Adams

The Takeaway, WNYC

office: (646) 829 - 4060

cell: (419) 615 - 3420

"Romero, David" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16BFCFD2B09343CD800DB9CC20D03BF3-ROMERO,DAVID>

To: <u>Stevenson</u>

<u>Peter</u>

CC: "Mylott, Richard" < Mylott.Richard@epa.gov>

"Williams, Laura" < williams.laura@epa.gov>

Date: 7/9/2014 2:49:24 PM

Subject: Brief update to richard mylott

Pete

From:

If you get the chance and are able to give Richard Mylott a brief email/text/or voice mail describing the situation out there before the close of business today everyone would be deeply appreciative.

David Romero Emergency Response Program EPA Region 8 (303)312-6572 "Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Williams

Laura;

CC:

From:

Date: 7/9/2014 4:43:39 PM

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Ok, sounds good. Thanks.

From: Williams, Laura

Sent: Wednesday, July 09, 2014 4:30 PM

To: Mylott, Richard

Subject: RE: AP: Saltwater leak alters water supply for 1 ND town

Thanks Richard. We're still waiting to hear from Pete and have sent him an email asking him to contact you ASAP. Apparently, he's out of cell tower range as our calls have gone immediately to "not in service" messages. - lw

From: Mylott, Richard

Sent: Wednesday, July 09, 2014 4:27 PM

To: Bahrman, Sarah; Mohr, Mindy; McClain-Vanderpool, Lisa; McGrath, Shaun; Cantor, Howard; Card, Joan; Ostrander, David; Williams, Laura; Stevenson, Peter; Romero,

David; Morales, Monica; Mitre, Alfreda; Phillips, Gregory; Hestmark, Martin

Subject: AP: Saltwater leak alters water supply for 1 ND town

Fyi.

Saltwater leak alters water supply for 1 ND town

By Associated PressJuly 9 at 5:31 PM

MANDAREE, N.D. — Tribal leaders switched to an alternative source of water Wednesday for one town on an American Indian reservation in North Dakota following a substantial leak from a saltwater pipeline.

Kris Roberts, an environmental geologist with the North Dakota Health Department, said the spill was reported Tuesday but officials did not have any information on volumes or if the brine had reached Bear Den Bay, a tributary to Lake Sakakawea. The lake, a reservoir of the Missouri River, provides drinking water to several communities on the Fort Berthold Indian Reservation, occupied by the Mandan, Hidatsa and Arikara tribes in the heart of North Dakota's booming oil patch.

Saltwater is an unwanted byproduct of oil and natural gas drilling that can be 20 times saltier than ocean water.

Three Affiliated Tribes Chairman Tex Hall said in a statement that "there are no specific concerns over the water safety" but that tribal officials closed the water intake to Mandaree as a precaution without elaborating on what steps were taken. Hall said the briny water did not appear to have reached Lake Sakakawea.

Houston-based Crestwood Midstream Services Inc., owner of the pipeline, said in a statement Wednesday that the spill was contained and cleanup was underway. The company said it was investigating the cause of the leak but would not comment beyond its statement.

The federal Environmental Protection Agency said an investigator was heading to the site Wednesday afternoon.

Roberts said damage from the toxic spill could be seen Wednesday.

"We've got dead trees, dead grasses, dead bushes, dying bushes," Roberts said.

Karolin Rockvoy, a McKenzine County Emergency manager, said the spill appeared to have gone undetected for some time.

"Looking at vegetation, it didn't happen yesterday," she said. "I can guarantee you that."

The number of saltwater spills in North Dakota has grown with the state's soaring oil production.

North Dakota produced 25.5 million barrels of briny water in 2012, the latest figures available. A barrel is 42 gallons. There were 141 pipeline leaks reported in North Dakota in 2012, 99 of which spilled about 8,000 barrels of the saltwater. About 6,150 barrels of the spilled saltwater was recovered, state regulators said.

In 2006, a broken oil pipeline belched more than a million gallons of saltwater into a northwestern North Dakota creek, aquifer and pond. The cleanup efforts are ongoing at that site, which has been called the worst environmental disaster in state history.

The ruptured pipeline allowed briny water to spew unnoticed for weeks into a tributary of the Yellowstone River near Alexander and caused a massive die-off of fish, turtles and plants.

That spill came during the infancy of North Dakota's oil boom. Now, a network of saltwater pipelines extends to hundreds of disposal wells in western North Dakota, where the briny water is pumped underground for permanent storage.

Proposed legislation to mandate flow meters and cutoff switches on such lines was overwhelmingly rejected last year in the Legislature.

"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Wiser

From:

Nathan; Chalfant

Mark

CC: Gibbons

<u>Dayna;Briskin</u> Jeanne;Burden

Susan; McClain-Vanderpool

<u>Lisa</u>

Date: 7/11/2014 9:41:29 AM

Subject: RE: Associated Press seeks info on oil saltwater

From: Wiser, Nathan

Sent: Friday, July 11, 2014 9:34 AM **To:** Mylott, Richard; Chalfant, Mark

Cc: Gibbons, Dayna; Briskin, Jeanne; Burden, Susan; McClain-Vanderpool, Lisa

Subject: FW: Associated Press seeks info on oil saltwater

Hi Rich and Mark,

Nathan Wiser, Environmental Scientist
Office of Research and Development, Office of Science Policy
303-312-6211 office
wiser.nathan@epa.gov

mailing address: EPA Region 8 (8ENF-UFO) 1595 Wynkoop Street Denver, CO 80202

From: Gibbons, Dayna

Sent: Friday, July 11, 2014 8:58 AM

To: Wiser, Nathan

Subject: RE: Associated Press seeks info on oil saltwater

I'll send to the press office. Let them know that they need to work through the press office to set up a conversation and that you've forwarded it along.

Thanks!

From: Wiser, Nathan

Sent: Friday, July 11, 2014 10:56 AM

To: Gibbons, Dayna

Cc: Briskin, Jeanne; Burden, Susan

Subject: FW: Associated Press seeks info on oil saltwater

Hi Dayna,

This just came in. What shall I do?

Nathan Wiser, Environmental Scientist
Office of Research and Development, Office of Science Policy
303-312-6211 office
wiser.nathan@epa.gov

mailing address: EPA Region 8 (8ENF-UFO) 1595 Wynkoop Street Denver, CO 80202

From: Flesher, John [mailto:jflesher@ap.org]

Sent: Friday, July 11, 2014 8:38 AM

To: Wiser, Nathan

Subject: Associated Press seeks info on oil saltwater

Hello, Nathan:

I am an Associated Press environmental reporter and am working with colleagues on covering the aftermath of an oil saltwater/brine spill in North Dakota. I'm exploring a number of reporting angles regarding saltwater and its handling, and was hoping you could provide some information. Could you spare a few minutes today for a phone call to discuss? I'd greatly appreciate the help.

Thanks and regards,

John Flesher
The Associated Press
120 W. Front Street
Traverse City, Mich. 49684
Office: 231-929-4180

Cell: 231-944-9133

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[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=16543F1A0E1A4C4DAFE0611A15C85705-MYLOTT,RICHARD>

To: Wood

Joshua <JoWood@ap.org>

CC:

From:

Date: 7/17/2014 1:36:01 PM

Subject: Qs re: brine spill

Hi Josh—hope below helps. The nature of EPA's roles and responsibilities are based on the specific circumstances associated with each spill. In this case, there were no indications of oil impacts to surface waters. The Tribe is the primary authority for spill response and the cleanup in areas of the drainage affected by brine water. I understand Glenda Baker Embry is the best contact for the Tribe.

Rich Mylott

-Did the EPA conduct its own air, water and soil tests at the scene of the site? Did the EPA conduct water tests in Lake Sakakawea and Bear Den Bay? If so, what did these tests show? If the EPA did not conduct these tests, did any independent body conduct these tests? By independent, I mean not Crestwood Midstream Partners LP or its subsidiary, nor a company they contracted nor somebody they recommended to the Three Affiliated Tribes.

No. The Tribe is the lead agency on the spill response and the best source for information related to sampling data. The lead response agency and responsible party are typically responsible for securing samples at spill sites. My understanding is that samples taken near drinking water intakes showed no indication of hydrocarbons or impacts from brine. I understand some samples were tested at a state lab, but you should confirm with the Tribe as they are lead. I also understand samples were taken at several locations; the Tribe will have specifics.

-What jurisdiction does the EPA have over of spills on reservations?

EPA investigates spills reported to the U.S. Coast Guard's National Response Center and provides support to state, tribal and local authorities as appropriate. EPA's primary role under our authorities is to ensure appropriate response actions are taken when 1.) oil spills threaten or impact surface waters or 2.) releases of hazardous substances pose an immediate and substantial threat to human health. Our specific roles as a lead or supporting agency also depend on the extent of state, tribal and local response capabilities. In this case, the spill involved brine water and there was no oil observed in the drainage leading to the bay or in the bay itself. As such, our roles were limited to an initial assessment and the provision of support to the Tribe as lead.

-I know that the state of North Dakota and the counties do not have jurisdiction over these kinds of spills. Are all spills on tribal lands reported to the EPA? If not, what kinds of spills do as far as size, location etc?

Yes. Oil and hazardous material spills with the potential to impact surface waters are reported to the U.S. Coast Guard's National Response Center, which notifies the

appropriate EPA region. There is a reportable quantity for spills/discharges which varies by chemical. For oil, the reportable quantity is a sheen on water.

-What did the EPA observe on the scene? Can you provide any reports filed about the incident?

EPA inspected the spill site and walked the length of the drainage. There were no signs of oil contamination along the spill flow path into the drainage below. There were no signs of oil in the drainage, in the beaver ponds, or below. There were no signs of oil on water at Bear Den Bay, or along the shoreline of the bay.

-The last statement I got from your office said the EPA was still investigating the extent of brine contamination.

Did brine get into Lake Sakakawea or the Bear Den Bay?

EPA observed no evidence of impacts to the bay or the lake, however the Tribe will be the best source for information.

Do we have figures on how much ground was affected by the spill and how much vegetation was killed off? Was wildlife affected?

The cleanup of the affected drainage is the Tribe's responsibility. The Tribe would be primary source for specifics related to the scope of impacts. The brine water did affect vegetation in the drainage and was held up in a series of beaver ponds.

-When was the EPA first notified of the Mandaree spill? Who notified the agency?

The company made a report to the NRC on July 8 at 13:16.

-Crestwood Midstream Partners LP estimates the cleanup will take weeks. A spill of a similar size occurred near the town of Alexander, North Dakota in 2006 and was still being cleaned up as of last week. Does the EPA concur with Crestwood's estimated clean-up timeline?

The cleanup of the drainage is the Tribe's responsibility. The Tribe will be the best source for specific cleanup requirements and estimates on how long actions will take.

-How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?

Saltwater contains high concentrations of dissolved solids that can be toxic to vegetation and aquatic organisms. It can also make water unsuitable for drinking.

-What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

The Tribe is responsible for the cleanup of the drainage. The primary concern will be flushing the drainage with fresh water and helping vegetation recover. Precipitation is also a factor in diluting concentrations in soils and helping with recovery.

"Mylott, Richard" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE; GROUP

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To: Wood

Joshua <JoWood@ap.org>

CC:

From:

Date: 7/16/2014 4:12:21 PM

Subject: RE: your call

Josh—thanks, I'll work on these.

From: Wood, Joshua [mailto:JoWood@ap.org]

Sent: Wednesday, July 16, 2014 1:21 PM

To: Mylott, Richard **Subject:** RE: your call

Hi Rich,

Thanks for getting back to me. I'm trying to get more information about this pipeline spill near Mandaree, North Dakota that occurred in early July. I'm trying to get as much information as possible. Any updates you have collected would be appreciated and I have quite a few specific questions:

- -Did the EPA conduct its own air, water and soil tests at the scene of the site? Did the EPA conduct water tests in Lake Sakakawea and Bear Den Bay? If so, what did these tests show? If the EPA did not conduct these tests, did any independent body conduct these tests? By independent, I mean not Crestwood Midstream Partners LP or its subsidiary, nor a company they contracted nor somebody they recommended to the Three Affiliated Tribes.
- -What jurisdiction does the EPA have over of spills on reservations?
- -I know that the state of North Dakota and the counties do not have jurisdiction over these kinds of spills. Are all spills on tribal lands reported to the EPA? If not, what kinds of spills do as far as size, location etc?
- -What did the EPA observe on the scene? Can you provide any reports filed about the incident?
- -The last statement I got from you office said the EPA was still investigating the extent of brine contamination. Did brine get into Lake Sakakawea or the Bear Den Bay? Do we have figures on how much ground was affected by the spill and how much vegetation was killed off? Was wildlife affected?
- -When was the EPA first notified of the Mandaree spill? Who notified the agency?

-Is the EPA still on site?

- -Crestwood Midstream Partners LP estimates the clean up will take weeks. A spill of a similar size occurred near the town of Alexander, North Dakota in 2006 and was still being cleaned up as of last week. Does the EPA concur with Crestwood's estimated clean-up timeline?
- -How does saltwater impact the environment? Particularly what does it do to soil, vegetation etc that it comes in contact with?
- -What challenges does cleaning up brine pose? Are there specific challenges with this spill? Has the EPA made recommendations on how to proceed?

Thanks, and hope to hear back from you soon.

Best, Josh

From: Mylott, Richard [mailto:Mylott.Richard@epa.gov]

Sent: Wednesday, July 16, 2014 2:01 PM

To: Wood, Joshua **Subject:** your call

Josh—I'm working out of the office today, but checking mail periodically. Let me know how I can help. Thanks!

Rich Mylott

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